

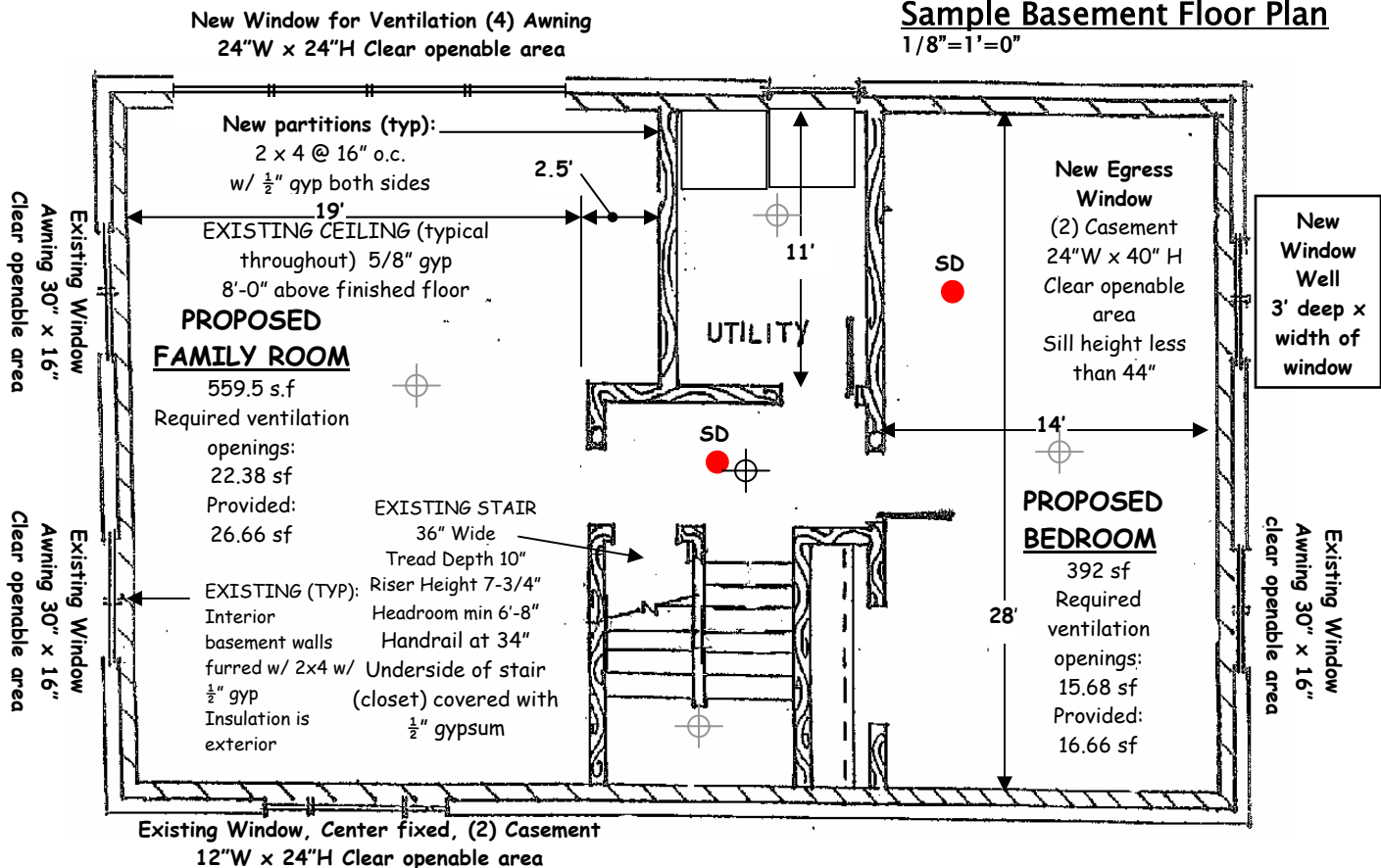


Residential Basement Finishing and Remodeling 2007

For 1 & 2 family dwellings and townhomes regulated by the IRC/MN Rules Ch 1309
Building Safety Room 210 City Hall Duluth MN 55802 Ph 218/730-5300 Fax 730-5159

Sample Basement Floor Plan

1/8"=1'-0"



Plans for basement finishing or remodeling must include the following and plans cannot be approved without ALL of the required information:

- Indicate current vs. proposed use of all basement areas.
- Plans must be drawn to scale at not less than 1/8"=1'-0".
- Emergency egress windows are required in basements. Finishing a basement or adding habitable space in a basement requires installation of egress window if none exists. Existing and proposed egress windows must be shown on plans. All sleeping rooms require an emergency egress window. If there is a sleeping room in the basement with an egress window, another egress window need not be provided in the basement except in other sleeping rooms.
- Compliance with light and ventilation requirements must be shown. Artificial light may be provided in lieu of glazing. Mechanical ventilation may be provided in lieu of clear opening area BUT this must be specified on the plan. When clear opening area provides required ventilation, areas of rooms and required ventilation area calculations must be provided and each opening must be specified on the plan.
- Ceiling height must be indicated on plans. Ceiling finish must be indicated.
- Stairs, new or existing, must be fully described, including width, riser height, tread depth, headroom, handrail location and its height above treads, guards (if applicable) its height and baluster spacing, and landing width and depth.
- New partitions must be clearly indicated on plans and their construction specified.
- Existing partitions must be labeled.
- Work at basement or exterior walls must be shown on plans and clearly described in specification.

PARTIAL LIST OF CODE REQUIREMENTS APPLICABLE TO FINISHING OR REMODELING BASEMENTS

LIGHT, VENTILATION AND HEATING

IRC R303

Habitable rooms. Except where adequate artificial light is provided (6 footcandles at 30" above the floor), all habitable rooms shall be provided with glazing area of not less than 8% of the floor area of such rooms. Except where approved mechanical ventilation is provided, natural ventilation shall be through windows, doors, louvers or other approved openings to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants. The minimum openable area to the outdoors shall be 4% of the floor area being ventilated.

Adjoining rooms. For the purpose of determining light and ventilation requirements, any room shall be considered as a portion of an adjoining room when at least one-half of the area of the common wall is open and unobstructed and provides an opening of not less than one-tenth of the floor area of the interior room but not less than 25 square feet (2.32 m²).

Bathrooms. Except where approved artificial light and ventilation are provided, bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 sf, one-half of which must be openable. Ventilation air from the space shall be exhausted directly to the outside.

Required glazed openings. Required glazed openings shall open directly onto a street or public alley, or a yard or court located on the same lot as the building.

CEILING HEIGHT

IRC R305

Minimum height Habitable rooms, hallways, corridors, bathrooms, toilet rooms, and basements shall have a ceiling height of not less than 7 feet. The required height shall be measured from the finish floor to the lowest projection from the ceiling. Areas or rooms with ceiling heights less than 7 feet are considered crawl spaces.

Exceptions:

1. Beams and girders spaced not less than 4 feet on center may project not more than 6 inches below the required ceiling height.
2. Not more than 50 percent of the required floor area of a room or space is permitted to have a sloped ceiling less than 7 feet in height with no portion of the required floor area less than 5 feet in height.

EGRESS WINDOWS

IRC R310, SBC 1309.0310

Emergency escape and rescue openings. Basements and every sleeping room shall have at least one openable emergency escape and rescue window or exterior door opening for emergency escape and rescue. Where openings are provided as a means of escape and rescue, they shall have a sill height of not more than 44" above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure the bulkhead enclosure shall comply with Section 310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the window or door opening from the inside. Escape and rescue window openings with a finished sill height below the adjacent ground elevation shall be provided with a window well. A minimum ceiling height of 48" shall be maintained above the exterior grade from the exterior wall to a public way.

Minimum opening area All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 sf, except grade floor openings shall have a minimum net clear opening of 5 sf.

Minimum opening height and width The minimum net clear opening height shall be 24". The minimum net clear opening width shall be 20".

Operational constraints Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools or special knowledge.

Window wells. Window wells required for emergency escape and rescue shall have horizontal dimensions that allow the door or window of the emergency escape and rescue opening to be fully opened. The horizontal dimensions of the window well shall provide a minimum net clear area of 9 sf with a minimum horizontal projection and width of 36". The required ladder or steps shall be permitted to encroach a maximum of 6" into the required dimensions of the window well. Footing depth below grade must be maintained at window well locations.

Ladder and steps in window wells. Window wells with a vertical depth greater than 44" below the adjacent ground level shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or rungs shall have an inside width of at least 12", shall project at least 3" from the wall and shall be spaced not more than 18" on center vertically for the full height of the window well.

Bulkhead enclosures. Bulkhead enclosures shall provide direct access to the basement. The bulkhead enclosure with the door panels in the fully open position shall provide the same minimum net clear opening required for egress windows.

Bars, grills, covers and screens. Bars, grills, covers, screens or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures, or window wells that serve such openings, provided the minimum net clear opening size equals that required for egress windows. Release or removal shall be from the inside and shall not require the use of a key or other tool, special knowledge or force greater than that which is required for normal operation of the escape and rescue opening.